

WHAT IS CLAIMED IS:

1. A digital camera for use with a separate color printer having predetermined characteristics, said camera comprising:

- a housing;
- an image sensor;
- a lens adapted to focus a scene onto the image sensor such that the image sensor captures analog image data;
- an analog-to-digital converter adapted to convert the analog image data captured by the image sensor to digital image data;
- an image processor adapted to perform first processing and compression of the digital image data to create a first-processed digital image file;
- digital memory removably mounted in the camera housing, a plurality of first-processed digital image files from the image processor being stored in the removable digital memory; and
- an interface to the separate color printer to which a digital image file, which is user-selected from the digital memory, is applied, wherein the image processor is adapted to perform second processing on the user-selected digital image file before the user-selected digital image file is applied to the interface.

2. A digital camera as set forth in Claim 1 wherein color records of the user-selected digital image file are converted to multi-tone values during said second processing.

3. A digital camera as set forth in Claim 2 wherein the multi-tone values are determined using a predetermined number of density levels provided by the separate color printer over the interface.

4. A digital camera as set forth in Claim 3 wherein the multi-tone values are determined using a predetermined density for each of the density levels.

5. A digital camera as set forth in Claim 1 wherein color records of the user-selected digital image file are processed during said second processing to provide ink limiting.

6. A digital camera as set forth in Claim 5 wherein the ink limiting is effected using type of printer, ink, and receiver media information provided by the separate color printer over the interface.

7. A digital camera as set forth in Claim 1 wherein:
the separate color printer uses four ink colors; and
the color records of the user-selected digital image file are converted to three image planes and are color corrected during said second processing to provide a set of color planes corresponding to each ink color of the separate color printer.

8. A digital camera as set forth in Claim 7 wherein the provided set of color planes corresponding to each ink color of the separate color printer include at least four colors.

9. A digital camera as set forth in Claim 7 wherein the provided set of color planes corresponding to each ink color of the separate color printer include light cyan, dark cyan, light magenta, dark magenta, yellow, and black.

10. A digital camera as set forth in Claim 1 wherein:
the separate color printer uses four ink colors;
the color records of the user-selected digital image file are converted to three image planes; and
sequentially during said second processing:
the three image planes are color corrected to provide a set of color planes corresponding to each ink color of the separate color printer,
color records of the user-selected digital image file are processed to provide ink limiting, and

color records of the user-selected digital image file are converted to multi-tone values.

11. A digital camera as set forth in Claim 1 wherein:

the housing includes a color image display for providing user-observable images of first-processed digital image files stored in the removable digital memory; and

user controls coupled to the processor for user-selecting a digital image file to be second processed by said image processor.

12. A digital camera as set forth in Claim 1 wherein:

the first processing includes:

interpolation to provide red, green and blue image data values to provide red, green, and blue color planes,
color correction of the red, green, and blue color planes, and
image compression; and

the second processing includes decompression of the user-selected digital image file before the user-selected digital image file is applied to the interface.

13. A digital camera as set forth in Claim 12 wherein:

the separate color printer uses four ink colors;

the color records of the user-selected digital image file are converted to three image planes; and

sequentially during said second processing:

the decompression of the user-selected digital image file is effected,
the three image planes are color corrected to provide a set of color planes corresponding to each ink color of the separate color printer,
color records of the user-selected digital image file are processed to provide ink limiting, and
color records of the user-selected digital image file are converted to multi-tone values.